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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,177

10/31/2003

Klaus Peter Selig

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05/13/2004

LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
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CHICAGO, IL 60601-6780

EXAMINER

GIBSON, RANDY W

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,177

Applicant(s)

SELIG ET AL.

Examiner

Randy W. Gibson

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1&2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. The certified copy of the German patent application has been received. However, there is no copy of the applicant's intervening PCT application in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "evaluation circuit", the "memory unit", the "diagnostic unit" and the "temperature sensor" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 7, 8, and 10-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application

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was filed, had possession of the claimed invention. There seems to be no mention in the written description of a "memory unit", a "diagnostic unit" or a "temperature sensor". There seems to be nothing in the written description about correcting the load cell signals based on temperature, periodically performing a check on the functionality of the load cells, storing the weight signals in a memory, storing peak load values, or designating a weight signal as falling into a predetermined weight class.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 6, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by the Delphi Technologies reference (EP 0955203 A2). From Figure 1, it appears that element 22 at the front of the seat allows for height adjustment of the vehicle seat by virtue of the bolt and joint in the middle. Force transducer 38 is attached to the supporting frame 20 and a pivot point 32 of the seat height adjustment mechanism 22. Paragraph 0011 discusses overload protection. The evaluation circuit for processing the weight signal of claim 6 would need to be inherently present since it is self evident that the weight signal is being generated to be used for something.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Delphi Technologies reference (EP 0955203 A2) in view of Nishitani (US # 5,243,146) and Takahashi (US # 5,892,181). The Delphi reference uses resistive strain gages rather than inductive strain gages. However, inductive strain sensors are known as taught by the example of Nishitani (Col. 2, line 56 to col. 3, line 22). Takahashi disclose that inductive strain sensors are art recognized functional equivalents of resistive strain sensors (Col. 1, lines 27-32; Col. 7, lines 43-67). It would have been obvious to replace the resistive strain gage of the Delphi reference with an inductive strain sensor base on their art recognized functional equivalence. See *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982); and, *MPEP* §§ 2144.06.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Delphi Technologies reference (EP 0955203 A2) in view of Adolph et al (US # 5,785,347). The Delphi reference does not describe categorizing the weight signal into a plurality of weight classes. However, segregating an automotive seat weight signal into predetermined weight classes for the purpose of varying the amount of inflation of the

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air bag accordingly is known as shown by the example of Adolph et al (Col. 3, line 60 to col. 4, line 21). It would have been obvious to segregate the weight signal of the Delphi reference into different weight classes for the purpose of providing more precise control of the deployment the air bag.

8. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Delphi Technologies reference (EP 0955203 A2) in view of Oestreichler et al (US # 6,070,115) and Knox et al (US # 6,725,165). The Delphi reference does not describe a temperature sensor for making a temperature correction of the weighing signal, the diagnostic circuit, nor does it describe determining the center of gravity of the vehicle seat occupant. However, it is well known that the resistance value of strain gages is temperature dependent (since electrical resistance itself is a temperature dependent property as is known from basic physics), and it is known in the art to use some type of temperature sensor to compensate therefore as shown by the example of Oestreichler et al (Col. 4, lines 9-25; Col. 4, line 66 to col. 5, line 13). It would have been obvious to the ordinary practitioner to modify the device of the Delphi reference to include temperature compensation to improve the accuracy of the weight sensor.

It is known in the weighing art that the output of force/load sensors change over time due to various age-related factors such as mechanical "creep" caused changes in the frame due to metal fatigue and/or stretching, electrical "drift" caused by age induced changes in the values of electrical components, etc. It is known in the weighing art to periodically diagnose and re-zero a force sensor as suggested by the examples of Knox

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et al (Col. 1, line 15 to col. 2, line 53; Col. 7, line 47 to col. 10, line 27) and Oestreichler et al (who is simultaneously compensating for temperature induced drift and aging by re-zeroing his sensor (Col. 5, lines 1-13)). Note that the diagnostic/calibration unit of Knox et al needs a memory (104) in order to be operative. It would have been obvious to the ordinary practitioner to include a diagnostic/re-calibration unit to improve the accuracy of the weight sensor.

It is known to calculate the center of gravity of a vehicle seat occupant to correct the weight reading and/or to vary the amount of air bag inflation according to the passenger's location as shown by the example of Oestreichler et al (Col. 5, line 15 to col. 6, line 36). It would have been obvious to modify the device of the Delphi reference to calculate center of gravity of the seat occupant to help control air bag deployment accordingly.

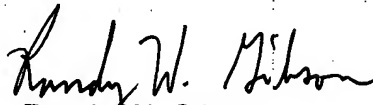
9. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Delphi Technologies reference (EP 0955203 A2) in view of Aoki et al (US # 6,323,443). Although the Delphi reference mentions an overload device, it does not specify any structure. Aoki et al disclose the type of overload/underload stop claimed (Col. 5, lines 14-58). It would have been obvious to the ordinary practitioner to use the overload protection stop of Aoki et al in the device of Delphi based on its known suitability for its intended use. See *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988); and, *MPEP* § 2144.07.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy W. Gibson whose telephone number is (571) 272-2103. The examiner can normally be reached on Mon-Fri., 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Randy W. Gibson
Primary Examiner
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